APPENDIX (V)

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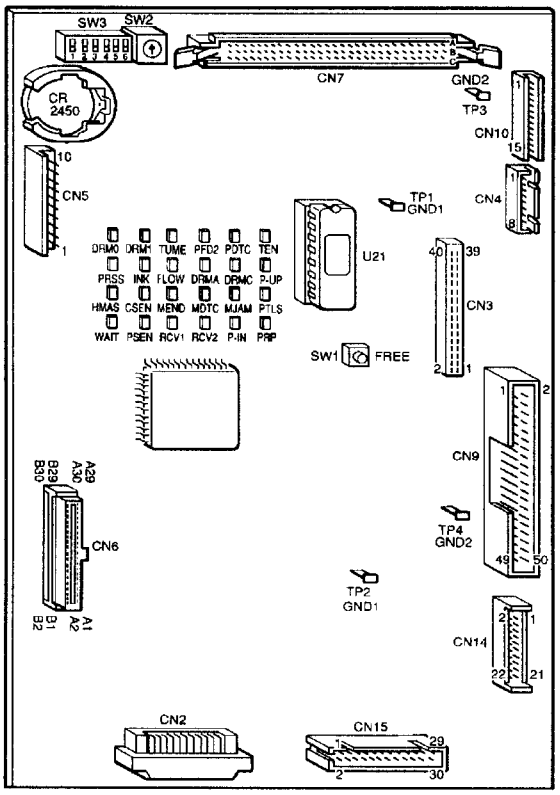
3. System PCB 2



Power Supply PCB

Motor Control PCB2
CN2

Job Separator

Image Processing PCB
CN7(GR1750/2710/2750/3750)
CN2(GR1700)

Option PCB

LCD Control PCB CN2
or
LED Control PCB CN13

Drum Control PCB2
CN1/CN2

SW

SW1 : Drum (Main motor) 30 rpm

SW2 : Machine Selection HEX SW

SW	LCD Type	LED Type
0	Not Used	Not Used
1	Not Used	Not Used
2	Not Used	Not Used
3	Not Used	Not Used
4	Not Used	**GR1700(B4)**
5	Not Used	**GR1700(A4)**
6	Not Used	**GR1700(Legal)**
7	Not Used	Not Used
8	**GR2750(B4)**	**GR2710(B4)**
9	**GR2750(A4)**	**GR2710(A4)**
A	**GR2750(Legal)**	**GR2710(Legal)**
B	Not Used	Not Used
C	**GR3750(A3)**	**GR1750(B4)**
D	**GR3750(Ledger)**	**GR1750(A4)**
E	Not Used	**GR1750(Legal)**
F	Not Used	Not Used

SW3 : Machine Selection DIP SW

LCD Type: (GR2750 & 3750)

SW	OFF	ON
1	●	
2	●	
3	●	
4	●	
5	●	
6	●	

LED Type: (GR1700,1750 & 2710)

SW	OFF	ON
1		●
2	●	
3	●	
4	●	
5	●	
6	●	

LED

LED	Sensor Name	When LED is ON
DRM0	0° Angular Sensor	Magnetism is detected
DRM1	180° Angular Sensor	Magnetism is detected
PFD2	Paper Feed Clutch Sensor	Light path is blocked
PDTC	Paper Detection Sensor	Reflected light detected
TEN	Vertical Centering Sensor	Light path is blocked
PRSS	Pressure Detection Sensor	Light path is blocked
INK	Ink Sensor	Ink is not detected
FLOW	Overflow Sensor	Ink is not detected
DRMA	Position A Sensor	Light path is blocked
DRMC	Position C Sensor	Light path is blocked
P-UP	Elevator Upper Limit Sensor	Light path is opened(actuator pressed)
HMAS	Disposal Box Master Sensor	Light path is opened(Master not detected)
CSEN	Master Loading Sensor	Reflected light(Master)detected
MEND	Master END Sensor	Reflected light(Master)detected
MDTC	Master Detection Sensor	Reflected light(Master) not detected
MJAM	Master Removal Sensor	Light path is blocked(Master detected)
PTLS	Paper Size Detection Sensor	Reflected light detected(Paper detected)
WAIT	Master Positioning Sensor	Reflected light(Master) not detected
PSEN	Paper Sensor	Light path is blocked(Paper detected)
RCV1	Paper Receiving Sensor 1	Light path is blocked(Paper detected)
RCV2	Paper Receiving Sensor 2	Light path is blocked(Paper detected)
P-IN	Paper Feed Detection Sensor	Light path is blocked(Paper detected)
PRP	Pressure Control Sensor	Light path is opened
TUME	Master Removal Hook Sensor	Light path is opened

TP

TP1 (GND1)	Ground for 5V lines.
TP2 (GND1)	Ground for 12V lines.
TP3 (GND2)	Ground for 24VA lines.
TP4 (GND2)	Ground for 24VC lines.

BATTERY

CR2450	1 piece

System PCB2

CN2 40PINS

D00	A20	Rd	A1	
GND1	A19	Gy	A2	
D01	A18	Gy	A3	
GND1	A17	Gy	A4	
D02	A16	Bl	A5	
GND1	A15	Gy	A6	
D03	A14	Gy	A7	
GND1	A13	Gy	A8	
D04	A12	Gy	A9	
GND1	A11	Bl	A10	
D05	A10	Gy	A11	
GND1	A9	Gy	A12	
D06	A8	Gy	A13	
GND1	A7	Gy	A14	
D07	A6	Bl	A15	
GND1	A5	Gy	A16	
A00	A4	Gy	A17	
GND1	A3	Gy	A18	
A01	A2	Gy	A19	LCD Control PCB CN2(GR2750/3750)
GND1	A1	Bl	A20	
A02	B20	Rd	B1	
GND1	B19	Gy	B2	
PNL-CS/	B18	Gy	B3	LED Control PCB CN13 (GR1700/1750/2710)
GND1	B17	Gy	B4	
IORD/	B16	Bl	B5	
GND1	B15	Gy	B6	
IOWR/	B14	Gy	B7	
GND1	B13	Gy	B8	
RESET/	B12	Gy	B9	
GND1	B11	Bl	B10	
IREQ/	B10	Gy	B11	
GND1	B9	Gy	B12	
PNL-EN/	B8	Gy	B13	
GND1	B7	Gy	B14	
WAIT	B6	Bl	B15	
GND1	B5	Gy	B16	
BUSY	B4	Gy	B17	
GND1	B3	Gy	B18	
N.C	B2	Gy	B19	
N.C	B1	Bl	B20	

CN3 40PINS

ADGND	1		
ADVCC	2		
	3		
Paper size sensor	4		
Temp.det.sensor	5		
	6		
GND1	7		
GND1	8		
GND1	9		
GND1	10		
D00	11		
D01	12		
D02	13		
D03	14		
D04	15		
D05	16		
D06	17		
D07	18		
GAZO-CS1	19		
GAZO-CS2	20	Image Processing PCB	
IOER/	21		
IORD/	22	CN7(GR1750/2710 /2750/3750)	
A00	23	CN2(GR1700)	
A01	24		
A02	25		
A03	26		
A04	27		
A05	28		
CK/	29		
LST/	30		
YUKOU/	31		
KUKAN	32		
	33		
I/F-RDDATA	34		
I/F-WRDATA	35		
GND1	36		
GND1	37		
GND1	38		
GND1	39		
RESET/	40		

CN6 60PINS

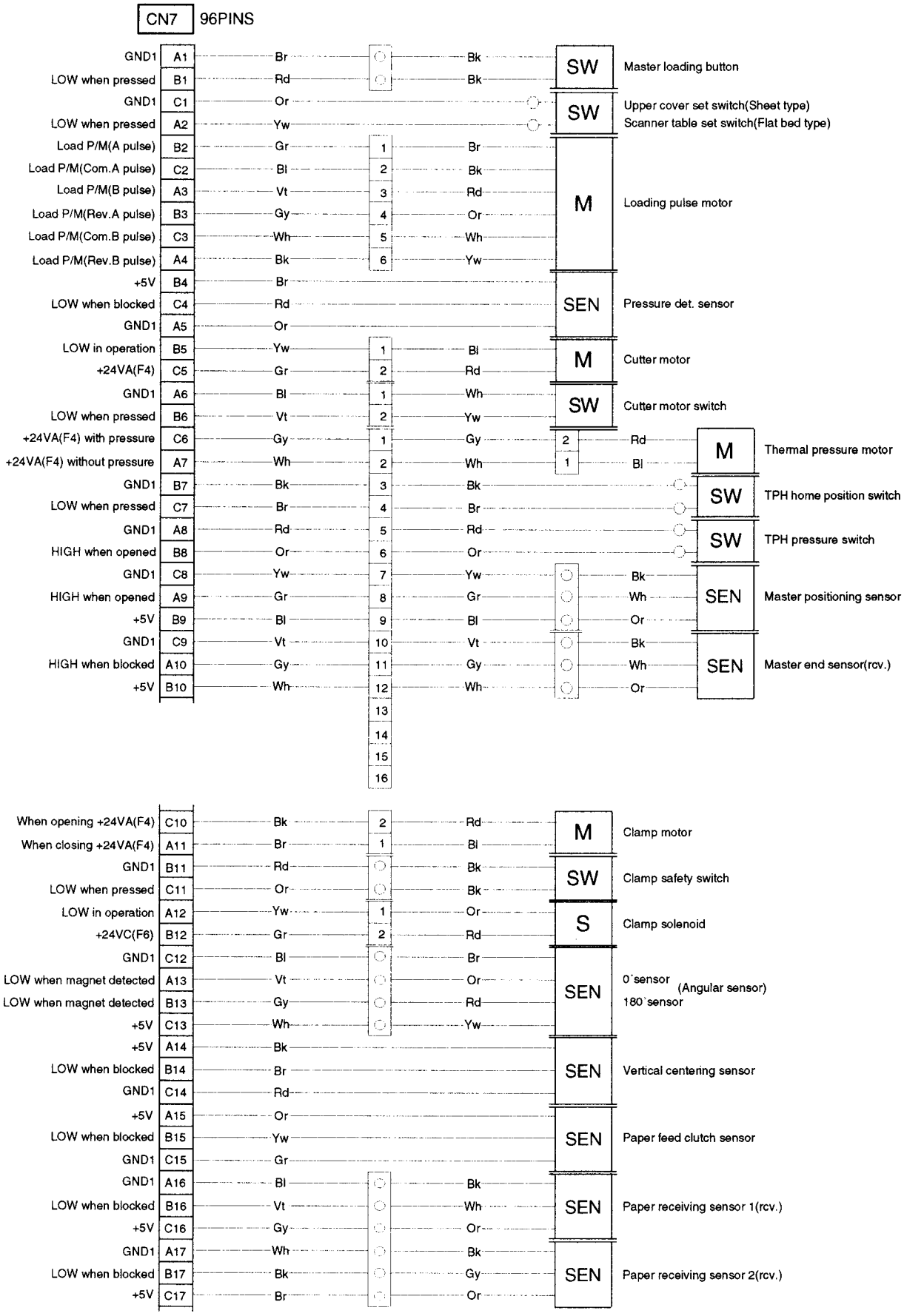
GND1	A1		
GND1	B1		
GND1	A2		
GND1	B2		
GND1	A3		
GND1	B3		
+5V	A4		
+5V	B4		
+5V	A5		
+5V	B5		
GND2	A6		
GND2	B6		
GND2	A7		
+24VB(F5)	B7		
+24VB(F5)	A8		
+24VB(F5)	B8		
TXD1	A9		
RXD1	B9		
RTS1/	A10		
CTS1/	B10		
TXD2	A11		
RXD2	B11		
RTS2/	A12		
CTS2/	B12		
TXD3	A13		
RXD3	B13		
RTS3/	A14		
CTS3/	B14		
I/F PCB set sig.	A15		
Paper sensor sig.	B15	Option PCB(I/F)	
Paper rcv.sen.2 sig.	A16	CN1	
Master count sig.	B16		
Copy count sig.	A17		
CK/	B17		
LST/	A18		
YUKOU/	B18		
N.C	A19		
I/F- RDDATE	B19		
I/F-WRDATE	A20		
N.C	B20		
D00	A21		
D01	B21		
D02	A22		
D03	B22		
D04	A23		
D05	B23		
D06	A24		
D07	B24		
A00	A25		
A01	B25		
A02	A26		
A03	B26		
N.C	A27		
Paper feed det.sen. sig.	B27		
N.C	A28		
N.C	B28		
CS/	A29		
RD/	B29		
WR/	A30		
RESET	B30		

CN4 8PINS

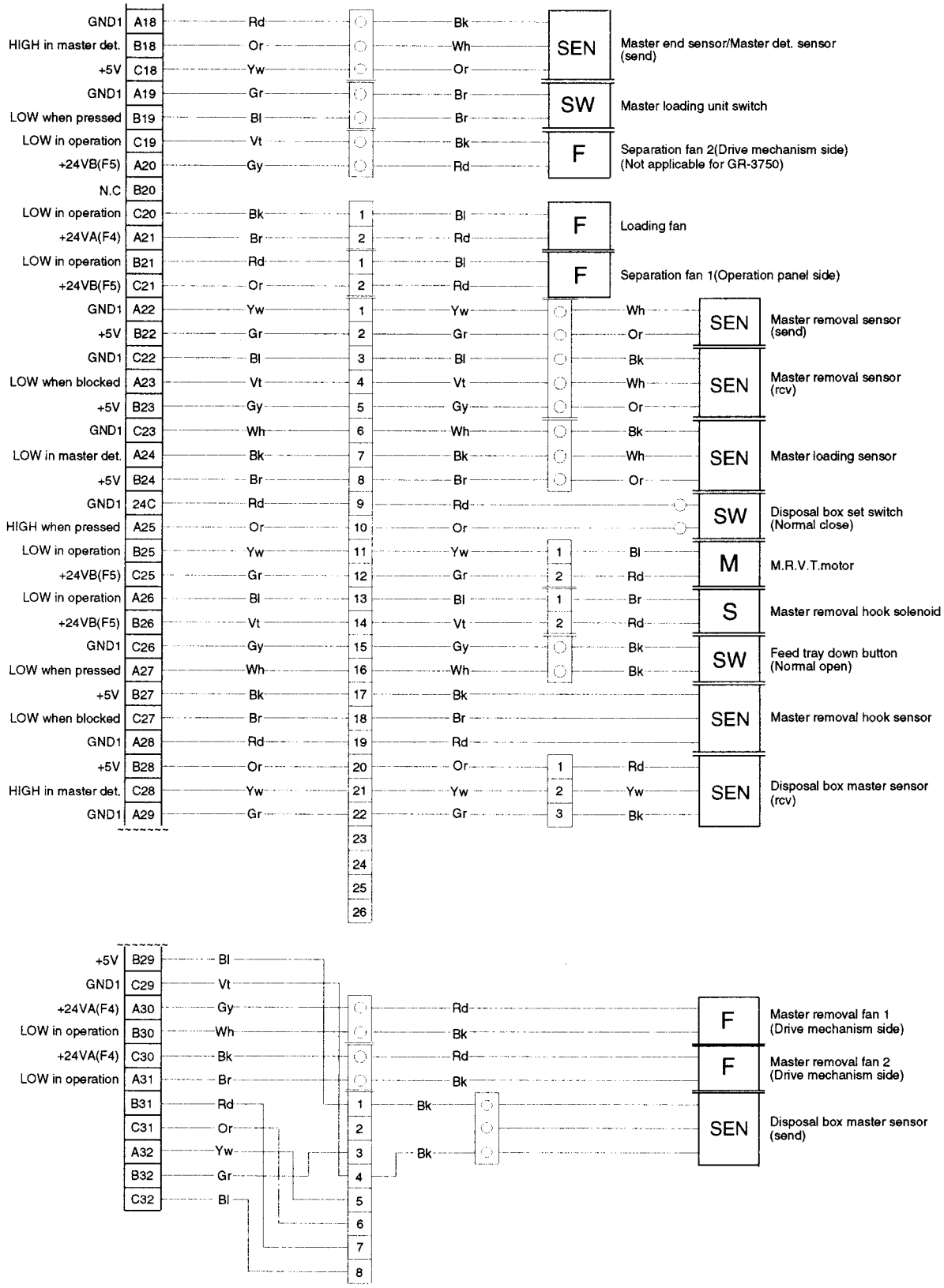
GND1	1	Br	1	
	2			
Signal A	3	Or	2	
Signal B	4	Rd	3	Job Separator
GND1	5		4	
+5V	6	Yw	5	
GND2	7	Gr	6	
+24V(F5)	8	Bl		

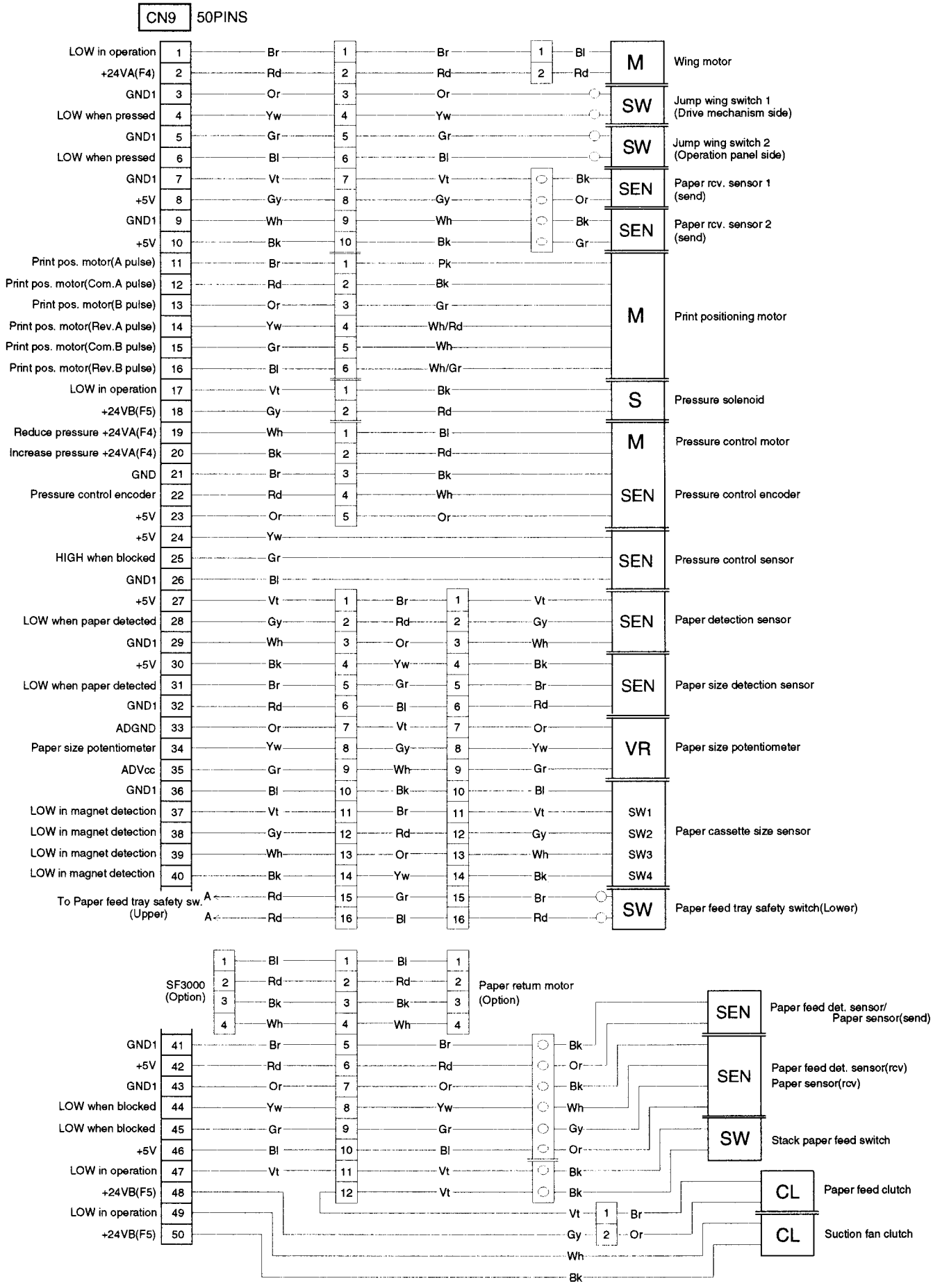
CN5 10PINS

+5V	1	Br	1	
GND1	2	Rd	2	
+12V	3	Or	3	
TPH CTL sig.	4	Yw	4	
Suction Fan sig.	5	Gr	5	Power Supply PCB CN5M
Power fail sig.	6	Bl	6	
+24VA(F4)	7	Vt	7	
+24VB(F5)	8	Gy	8	
+24VC(F6)	9	Wh	9	
GND2	10	Bk	10	

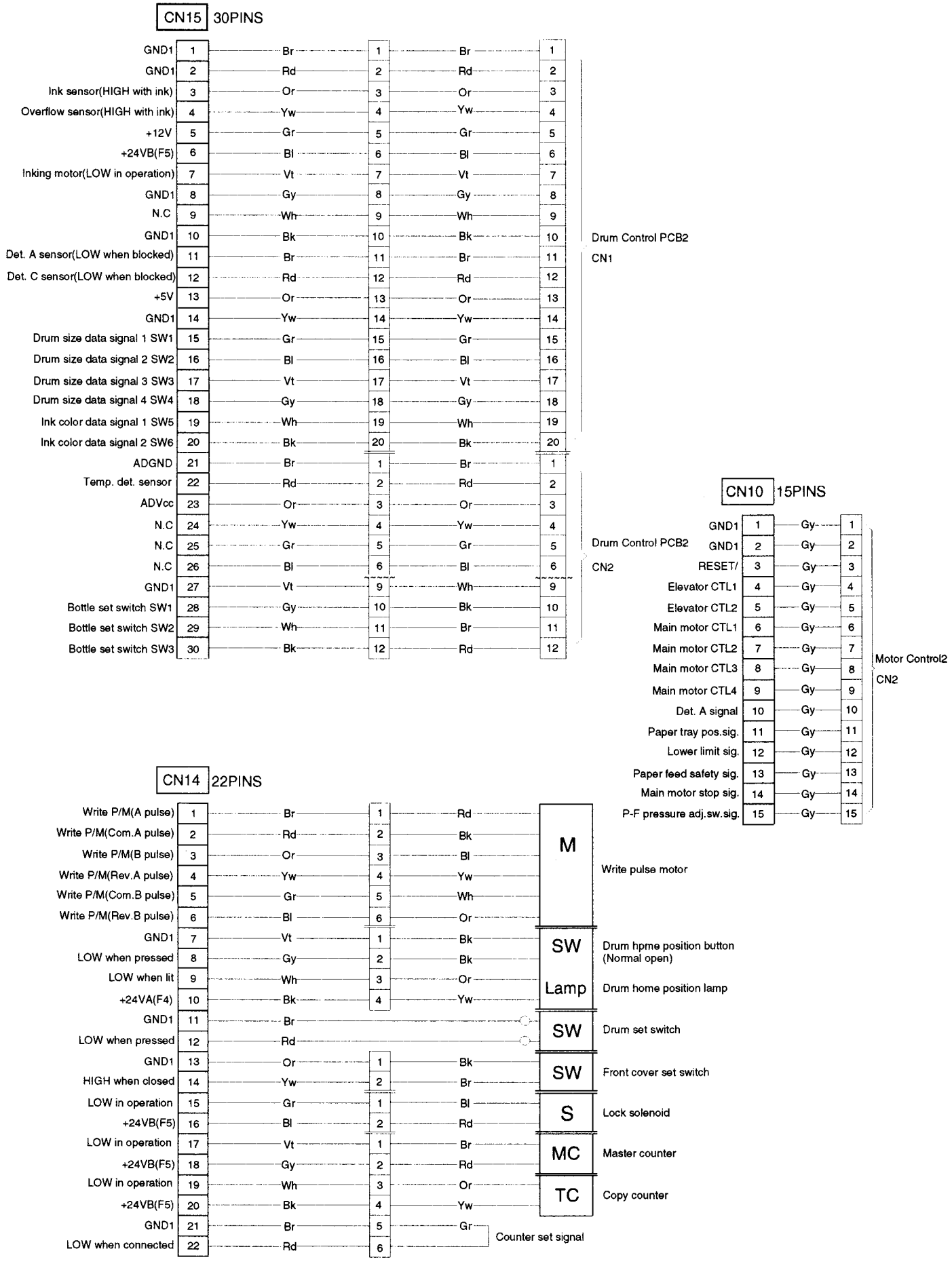

CN7
96PINS
GND1 A1 Br Bk SW Master loading button
LOW when pressed B1 Rd Bk
GND1 C1 Or SW Upper cover set switch(Sheet type)
LOW when pressed A2 Yw Scanner table set switch(Flat bed type)
Load P/M(A pulse) B2 Gr 1 Br M Loading pulse motor
Load P/M(Com.A pulse) C2 Bl 2 Bk
Load P/M(B pulse) A3 Vt 3 Rd
Load P/M(Rev.A pulse) B3 Gy 4 Or
Load P/M(Com.B pulse) C3 Wh 5 Wh
Load P/M(Rev.B pulse) A4 Bk 6 Yw
+5V B4 Br
LOW when blocked C4 Rd SEN Pressure det. sensor
GND1 A5 Or
LOW in operation B5 Yw 1 Bl M Cutter motor
+24VA(F4) C5 Gr 2 Rd
GND1 A6 Bl 1 Wh SW Cutter motor switch
LOW when pressed B6 Vt 2 Yw
+24VA(F4) with pressure C6 Gy 1 Gy 2 Rd M Thermal pressure motor
+24VA(F4) without pressure A7 Wh 2 Wh 1 Bl
GND1 B7 Bk 3 Bk SW TPH home position switch
LOW when pressed C7 Br 4 Br
GND1 A8 Rd 5 Rd SW TPH pressure switch
HIGH when opened B8 Or 6 Or
GND1 C8 Yw 7 Yw Bk SEN Master positioning sensor
HIGH when opened A9 Gr 8 Gr Wh
+5V B9 Bl 9 Bl Or
GND1 C9 Vt 10 Vt Bk SEN Master end sensor(rcv.)
HIGH when blocked A10 Gy 11 Gy Wh
+5V B10 Wh 12 Wh Or
13
14
15
16
When opening +24VA(F4) C10 Bk 2 Rd M Clamp motor
When closing +24VA(F4) A11 Br 1 Bl
GND1 B11 Rd Bk SW Clamp safety switch
LOW when pressed C11 Or Bk
LOW in operation A12 Yw 1 Or S Clamp solenoid
+24VC(F6) B12 Gr 2 Rd
GND1 C12 Bl Br SEN 0°sensor (Angular sensor)
LOW when magnet detected A13 Vt Or 180°sensor
LOW when magnet detected B13 Gy Rd
+5V C13 Wh Yw
+5V A14 Bk SEN Vertical centering sensor
LOW when blocked B14 Br
GND1 C14 Rd
+5V A15 Or SEN Paper feed clutch sensor
LOW when blocked B15 Yw
GND1 C15 Gr
GND1 A16 Bl Bk SEN Paper receiving sensor 1(rcv.)
LOW when blocked B16 Vt Wh
+5V C16 Gy Or
GND1 A17 Wh Bk SEN Paper receiving sensor 2(rcv.)
LOW when blocked B17 Bk Gy
+5V C17 Br Or

System PCB2


GND1 A18 Rd Bk
HIGH in master det. B18 Or Wh
+5V C18 Yw Or
SEN
Master end sensor/Master det. sensor (send)
GND1 A19 Gr Br
LOW when pressed B19 Bl Br
SW
Master loading unit switch
LOW in operation C19 Vt Bk
+24VB(F5) A20 Gy Rd
F
Separation fan 2(Drive mechanism side) (Not applicable for GR-3750)
N.C B20
LOW in operation C20 Bk 1 Bl
+24VA(F4) A21 Br 2 Rd
F
Loading fan
LOW in operation B21 Rd 1 Bl
+24VB(F5) C21 Or 2 Rd
F
Separation fan 1(Operation panel side)
GND1 A22 Yw 1 Yw Wh
+5V B22 Gr 2 Gr Or
SEN
Master removal sensor (send)
GND1 C22 Bl 3 Bl Bk
LOW when blocked A23 Vt 4 Vt Wh
+5V B23 Gy 5 Gy Or
SEN
Master removal sensor (rcv)
GND1 C23 Wh 6 Wh Bk
LOW in master det. A24 Bk 7 Bk Wh
+5V B24 Br 8 Br Or
SEN
Master loading sensor
GND1 24C Rd 9 Rd
HIGH when pressed A25 Or 10 Or
SW
Disposal box set switch (Normal close)
LOW in operation B25 Yw 11 Yw 1 Bl
+24VB(F5) C25 Gr 12 Gr 2 Rd
M
M.R.V.T.motor
LOW in operation A26 Bl 13 Bl 1 Br
+24VB(F5) B26 Vt 14 Vt 2 Rd
S
Master removal hook solenoid
GND1 C26 Gy 15 Gy Bk
LOW when pressed A27 Wh 16 Wh Bk
SW
Feed tray down button (Normal open)
+5V B27 Bk 17 Bk
LOW when blocked C27 Br 18 Br
GND1 A28 Rd 19 Rd
SEN
Master removal hook sensor
+5V B28 Or 20 Or 1 Rd
HIGH in master det. C28 Yw 21 Yw 2 Yw
GND1 A29 Gr 22 Gr 3 Bk
SEN
Disposal box master sensor (rcv)
23
24
25
26
+5V B29 Bl
GND1 C29 Vt
+24VA(F4) A30 Gy Rd
F
Master removal fan 1 (Drive mechanism side)
LOW in operation B30 Wh Bk
+24VA(F4) C30 Bk Rd
F
Master removal fan 2 (Drive mechanism side)
LOW in operation A31 Br Bk
B31 Rd 1 Bk
C31 Or 2
A32 Yw 3 Bk
SEN
Disposal box master sensor (send)
B32 Gr 4
C32 Bl 5
6
7
8


CN9
50PINS
LOW in operation 1 Br
+24VA(F4) 2 Rd
GND1 3 Or
LOW when pressed 4 Yw
GND1 5 Gr
LOW when pressed 6 Bl
GND1 7 Vt
+5V 8 Gy
GND1 9 Wh
+5V 10 Bk
Print pos. motor(A pulse) 11 Br
Print pos. motor(Com.A pulse) 12 Rd
Print pos. motor(B pulse) 13 Or
Print pos. motor(Rev.A pulse) 14 Yw
Print pos. motor(Com.B pulse) 15 Gr
Print pos. motor(Rev.B pulse) 16 Bl
LOW in operation 17 Vt
+24VB(F5) 18 Gy
Reduce pressure +24VA(F4) 19 Wh
Increase pressure +24VA(F4) 20 Bk
GND 21 Br
Pressure control encoder 22 Rd
+5V 23 Or
+5V 24 Yw
HIGH when blocked 25 Gr
GND1 26 Bl
+5V 27 Vt
LOW when paper detected 28 Gy
GND1 29 Wh
+5V 30 Bk
LOW when paper detected 31 Br
GND1 32 Rd
ADGND 33 Or
Paper size potentiometer 34 Yw
ADVcc 35 Gr
GND1 36 Bl
LOW in magnet detection 37 Vt
LOW in magnet detection 38 Gy
LOW in magnet detection 39 Wh
LOW in magnet detection 40 Bk
To Paper feed tray safety sw. (Upper) A Rd
A Rd
M Wing motor
SW Jump wing switch 1 (Drive mechanism side)
SW Jump wing switch 2 (Operation panel side)
SEN Paper rcv. sensor 1 (send)
SEN Paper rcv. sensor 2 (send)
M Print positioning motor
S Pressure solenoid
M Pressure control motor
SEN Pressure control encoder
SEN Pressure control sensor
SEN Paper detection sensor
SEN Paper size detection sensor
VR Paper size potentiometer
SW1
SW2 Paper cassette size sensor
SW3
SW4
SW Paper feed tray safety switch(Lower)
SF3000 (Option) 1 Bl 2 Rd 3 Bk 4 Wh
Paper return motor (Option) 1 Bl 2 Rd 3 Bk 4 Wh
GND1 41 Br
+5V 42 Rd
GND1 43 Or
LOW when blocked 44 Yw
LOW when blocked 45 Gr
+5V 46 Bl
LOW in operation 47 Vt
+24VB(F5) 48
LOW in operation 49
+24VB(F5) 50
SEN Paper feed det. sensor/ Paper sensor(send)
SEN Paper feed det. sensor(rcv) Paper sensor(rcv)
SW Stack paper feed switch
CL Paper feed clutch
CL Suction fan clutch

System PCB2


CN15 30PINS
GND1 1 Br 1 Br 1
GND1 2 Rd 2 Rd 2
Ink sensor(HIGH with ink) 3 Or 3 Or 3
Overflow sensor(HIGH with ink) 4 Yw 4 Yw 4
+12V 5 Gr 5 Gr 5
+24VB(F5) 6 Bl 6 Bl 6
Inking motor(LOW in operation) 7 Vt 7 Vt 7
GND1 8 Gy 8 Gy 8
N.C 9 Wh 9 Wh 9
GND1 10 Bk 10 Bk 10
Det. A sensor(LOW when blocked) 11 Br 11 Br 11
Det. C sensor(LOW when blocked) 12 Rd 12 Rd 12
+5V 13 Or 13 Or 13
GND1 14 Yw 14 Yw 14
Drum size data signal 1 SW1 15 Gr 15 Gr 15
Drum size data signal 2 SW2 16 Bl 16 Bl 16
Drum size data signal 3 SW3 17 Vt 17 Vt 17
Drum size data signal 4 SW4 18 Gy 18 Gy 18
Ink color data signal 1 SW5 19 Wh 19 Wh 19
Ink color data signal 2 SW6 20 Bk 20 Bk 20
Drum Control PCB2
CN1
ADGND 21 Br 1 Br 1
Temp. det. sensor 22 Rd 2 Rd 2
ADVcc 23 Or 3 Or 3
N.C 24 Yw 4 Yw 4
N.C 25 Gr 5 Gr 5
N.C 26 Bl 6 Bl 6
GND1 27 Vt 9 Wh 9
Bottle set switch SW1 28 Gy 10 Bk 10
Bottle set switch SW2 29 Wh 11 Br 11
Bottle set switch SW3 30 Bk 12 Rd 12
Drum Control PCB2
CN2
CN10 15PINS
GND1 1 Gy 1
GND1 2 Gy 2
RESET/ 3 Gy 3
Elevator CTL1 4 Gy 4
Elevator CTL2 5 Gy 5
Main motor CTL1 6 Gy 6
Main motor CTL2 7 Gy 7
Main motor CTL3 8 Gy 8
Main motor CTL4 9 Gy 9
Det. A signal 10 Gy 10
Paper tray pos.sig. 11 Gy 11
Lower limit sig. 12 Gy 12
Paper feed safety sig. 13 Gy 13
Main motor stop sig. 14 Gy 14
P-F pressure adj.sw.sig. 15 Gy 15
Motor Control2
CN2
CN14 22PINS
Write P/M(A pulse) 1 Br 1 Rd
Write P/M(Com.A pulse) 2 Rd 2 Bk
Write P/M(B pulse) 3 Or 3 Bl
Write P/M(Rev.A pulse) 4 Yw 4 Yw
Write P/M(Com.B pulse) 5 Gr 5 Wh
Write P/M(Rev.B pulse) 6 Bl 6 Or
M
Write pulse motor
GND1 7 Vt 1 Bk
LOW when pressed 8 Gy 2 Bk
LOW when lit 9 Wh 3 Or
+24VA(F4) 10 Bk 4 Yw
SW
Drum hpme position button (Normal open)
Lamp
Drum home position lamp
GND1 11 Br
LOW when pressed 12 Rd
SW
Drum set switch
GND1 13 Or 1 Bk
HIGH when closed 14 Yw 2 Br
SW
Front cover set switch
LOW in operation 15 Gr 1 Bl
+24VB(F5) 16 Bl 2 Rd
S
Lock solenoid
LOW in operation 17 Vt 1 Br
+24VB(F5) 18 Gy 2 Rd
MC
Master counter
LOW in operation 19 Wh 3 Or
+24VB(F5) 20 Bk 4 Yw
TC
Copy counter
GND1 21 Br 5 Gr
LOW when connected 22 Rd 6
Counter set signal